

65. *THALASSORNIS LEUCONOTA*, Smith. White-backed Duck.

The specimen sent was shot on a pan in this district; I have only seen three or four specimens of this species, though I have done a good deal of Duck-shooting here.

66. *PLOTUS LEVAILLANTI*, Licht. African Darter.

There are always one or two Darters about the river close to Kroonstad, but I have only seen them singly, never in pairs; they sit on old dead stumps of trees over the water and dive with great ease, coming up with their heads just out of the water. For some reason or other they are very difficult to kill. From the specimen sent I took a freshly-killed yellow fish $9\frac{3}{4}$ inches in length.

[A few years since the Zoological Society of London possessed a living specimen of *Plotus levaillanti*, and also examples of *P. anhinga* and of *P. melanogaster*. Mr. Bartlett has been so good as to inform me that all three species, whilst under his observation, captured the living fishes on which they fed in the same manner, and that a peculiar one: the Darter always transfixed the fish on its sharp under mandible, from which it was subsequently tossed off and swallowed; a somewhat strenuous jerk was required to throw the fish off from the lower mandible which had transfixed it, owing to the tomæ of both mandibles being finely serrated.—J. H. G.]

XXXV.—*Notes on the Birds of Natal and adjoining parts of South Africa.* By HENRY SEEBOHM.

ALTHOUGH Natal is a very small country it embraces a wide range of climate, from the almost tropical coast, heated by the warm current of the Indian Ocean (which flows steadily from the equator), up to the temperate regions of the mountain valleys, five or six thousand feet above the level of the sea, at the foot of the Drakenberg range, which attain an elevation of eight to ten thousand feet. The character of the country varies also in other ways. The sugar-canes of Durban, the mealies (Indian corn) of Maritzberg, the bush

of the Kartloof, the veldt of Hanover and York, and the thorn (mimosa) country of Colenso have each their peculiar bird-life, so that the avifauna of Natal is a very varied one, rich in species as well as in individuals. To attempt to obtain more than the merest passing glimpse of so great a number of species of birds in so short a time as one month would be of course impossible. Moreover the month of March, during which I was in Natal, is unquestionably the least favourable one in the whole year for the study of the resident birds. In Natal, March is the beginning of autumn, most birds are in full moult, skulking in the bush, and, for the most part, silent. My chief object in visiting Natal was, not to study the resident birds, but to see some of our British species in their winter home, and to try and settle one or two vexed questions relating to the moulting and migration of British birds.

The statement that most, if not all, our species of Waders (Plovers, Sandpipers, and Snipes) moult their primaries in spring as well as in autumn has been questioned by so many practical as well as theoretical ornithologists, that I determined to visit some winter resort of these birds, and obtain irrefutable evidence that Naumann knew what he was talking about when he stated, as an unquestionable fact, that the *Limicolæ* moult their primaries in spring as well as in autumn. I chose the Bay of Durban as the most convenient locality where British birds abound in winter. The coast of South Africa is very steep, the sea is often rough, and the waves of the Indian Ocean dash against the barren sand-hills which skirt the shore with so much violence that few or no birds are to be seen from the deck of the coasters, except Petrels and now and then a Gull or a Gannet. On the other hand, the lagoons at the mouths of the rivers swarm with birds. The sand-hills protect them from the violence of the winds; and the periodical floods (for one of the features of South-African climate is that it never rains but it pours) bring down abundance of animal and vegetable food, which the birds can pick up at their leisure on the mud-flats left by the falling tide. As I expected, I found the Bay of Durban

swarming with British birds,—Curlew, Whimbrel, Green-shank, Grey Plover, Ring Dotterel, Wood Sandpiper, Common Sandpiper, and Sanderling. The only resident Waders were the African Sand Plover (*Charadrius marginatus*), which was very common, the Three-banded Sand Plover (*Charadrius tricollaris*), which was rare, and the Vermiculated Stone-Curlew (*Ædicnemus vermiculatus*), of which we met with a small party on the mud-flats at the mouth of the Umgeni river, north of Durban. The latter bird is interesting as being an *Ædicnemus* with the habits of an *Esacus*; I ascertained from resident sportsmen that it does not frequent the dry veldt, like its congener *Æ. capensis*, but is always found on the banks of rivers or lagoons.

None of these birds were very shy, and we had no difficulty in making very fair bags. Half the birds we shot had evidently just finished moulting, every quill having a gloss upon it like the bloom on a plum or the scales on the wing of a newly-hatched moth. The other half consisted of birds in every intermediate stage between a partial and a complete moult. The new quills were splendidly rich in colour; a pair, one on each side, were half-grown, and the rest were faded to a uniform rusty brown, and generally ragged and torn to little more than shreds of their former perfection. A day in March in the Bay of Durban must convince the most sceptical that Plovers and Sandpipers moult their primaries in spring as well as in autumn.

The other question which I was anxious to settle was the truth of the statement that, as a general rule, amongst regular migrants, the further north a bird goes to breed, the further south it goes to winter. As regards species this is very easy to prove; but as regards individuals, the statement has often been questioned. The Swallow (*Hirundo rustica*) is one of those conspicuous birds which is easily identified, and which is so numerous that its absence is quickly detected. Unfortunately we have no reliable records of the departure of Swallows from Central Africa; but when I was in Natal during the last week in March, Swallows were swarming in countless thousands on the coarse marine herbage on

the sand-hills between the sea and the lagoons at the mouth of the Umgeni river. Most of the adults were in splendid glossy blue plumage, having just completed their moult, but most of the birds of the year had only moulted about half their quills, and would probably not be in a condition to migrate for at least a fortnight.

Our Swallows arrive in North Africa very early, during the last half of February, in Southern Europe during the first half of March, but in Central Europe not until the last half of March. It is perfectly certain that the Natal Swallows, if they leave during the first half of April, even allowing them only a few days in which to accomplish a journey of five or six thousand miles, must go to some part of North Europe or to North-west Asia, since the Swallows which breed further south have arrived at their breeding-grounds before the South African birds have left their winter-quarters. So far as it goes, this evidence is conclusive that, in the case of the Palearctic Swallow, the individuals which go furthest north to breed go furthest south to winter.

Our Swallow, as probably every other species of *Hirundinidæ*, only moults once in the year. After having migrated six or seven thousand miles to their breeding-grounds, spent nearly six months in the stormy summer of Northern Europe, again migrated six or seven thousand miles back to their winter-quarters, and spent another six months during the rainy season of Natal, it is a wonder that the poor birds have any feathers left. Some of the birds which I shot had been in a lamentable condition; the old feathers that still remained had faded to a rusty brown and were worn to shreds. The plumage of the young birds though they had only run the gauntlet of one journey and one summer, is so much more tender than that of adults, that they were in the worst condition; the old feathers were no better than rusty rags.

The most interesting fact in connection with this single moult of the Swallows is, that it takes place in March instead of September. The natural inference to be drawn from such a circumstance is, that the Swallows belong to the southern

hemisphere ; and have only comparatively recently (probably in post-glacial times) emigrated to the Palæarctic and Nearctic Regions. This theory is confirmed by a glance at their geographical distribution. The genus *Hirundo*, as restricted by Sharpe in the 'Catalogue of Birds,' contains 27 species, of which 16 breed only in the Ethiopian Region, 2 in both the Ethiopian and Oriental Regions, 2 only in the Oriental Region, 1 in both the Oriental and Palæarctic Regions, 1 in both the Oriental and Australian Regions, 2 only in the Australian Region, 2 only in the Neotropical Region, and the remaining 1 in the Nearctic, Palæarctic, and Ethiopian Regions. Of the 11 genera recognized by the same author, *Hirundo* is the only one which is cosmopolitan in its range ; 2 are confined to the Ethiopian, and 1 to each of the Australian and Neotropical Regions, whilst no genus is confined to the Palæarctic or Nearctic Regions. The evidence that the Swallows had an Antarctic origin seems to be conclusive.

By far the most interesting of the Swallows that came under my notice in Natal was the Blue Swallow, *Hirundo atrocerulea*. A few pairs of these charming little birds were almost always to be seen, hawking diligently for flies over a small field which led from the garden of my friend Mr. Mark Hutchinson's house down to a little stream that flowed at the foot of the bush. Graham Hutchinson told me that they were seldom seen in the open veldt, and always chose sheltered nooks near bush and water. Early in the morning they often used to perch on the wire fence that enclosed the garden. He told me that they were never seen in winter. They associated freely with the other species, but were often alone.

Little or nothing has been written of the migrations of birds in the southern hemisphere, but it is almost as important a fact in the history of the birds of Natal as in that of British birds, although the difference in the geographical relations of the two countries modifies the details in many ways. It is a remarkable fact that whilst there are very many birds breeding in the northern hemisphere and winter-

ing in the southern, it is not known that any land-bird breeds in the southern hemisphere and habitually winters in the northern. It seems probable that most of the accidental visits of southern species of land-birds to the northern hemisphere which have been from time to time recorded are of doubtful authenticity; and amongst sea-birds it is confined to one or two species of Petrel, of which it is not unlikely that undiscovered breeding-grounds exist in the northern hemisphere. One cause of this apparent anomaly may be the difference in the distribution of the land. North of the British Islands and a corresponding latitude on the continent of Europe and Asia is an Arctic Region which is the breeding-ground of great numbers of migratory birds. Many of these winter in our islands, whilst others are regular spring and autumn visitors, passing along our coasts on migration from their Arctic breeding-grounds to their winter-quarters in Southern Europe or Africa. In the southern hemisphere there are no Antarctic breeding-grounds whence similar migrants could visit Natal. No part of South Africa is cold enough to be a breeding-ground of Arctic birds, and the land at the Antarctic pole is too cold for them. The natural consequence of this state of things is, that in South Africa there are no migrants from the Antarctic region, either in winter, or passing through in spring and autumn to winter further north. To compensate for the absence of such an important section of migratory birds, Natal and other parts of South Africa are visited every year by an equally important section of migratory birds, a migration which has no parallel in the northern hemisphere.

The fact that in the Antarctic region there is no land suitable for the breeding of birds, except a few species of Penguins and Petrels, is the cause of the apparently anomalous circumstance that the northern hemisphere is only accidentally visited by migratory birds whose breeding-grounds are in the southern hemisphere. South Africa is, however, visited by numerous regular migrants from the northern hemisphere, birds which spend half the year, from September to March, in the summer of the southern hemisphere, surrounded by other

species, some of them congeneric, busily engaged in the duties of incubation, but themselves looking on with absolute indifference. In addition to the Plovers and Sandpipers already mentioned, and the Swallow, many other species, such as the Swift (*Cypselus apus*), the Willow Wren (*Phylloscopus trochilus*), the Sedge Warbler (*Acrocephalus phragmitis*), the Great Sedge Warbler (*Acrocephalus turdoides*), which breed in Northern Europe and North-western Asia, cross the tropics to enjoy a second summer in the Transvaal, Natal, and other parts of South Africa. The fact that these birds which spend the summer in Europe are found in South Africa during the South-African breeding-season, has given rise to the legend that some birds breed twice in the year—in June in Europe, and in December in South Africa. It is very difficult to prove a negative, but when the evidence of these alleged cases of double breeding is carefully examined, it always proves to be unsatisfactory. Andersson, in his 'Birds of Damara-Land,' remarks of *Hirundo rustica* that it breeds in that country; but there can be little doubt that the Swallow which he supposed to be our species was the White-throated Swallow (*Hirundo albigularis*), which he does not mention, and which he probably mistook for the female of our bird. His further remark that in consequence of the scarcity of houses it breeds in rocks and trees, adds still more doubt to the accuracy of his observations. I have seen the Swallow breeding under overhanging cliffs in the Dobrudscha, but I never heard of its having been found nesting in a tree. Nordmann's Pratincole (*Glareola melanoptera*) is also stated, on the authority of Mrs. Barber, to breed in South Africa; but as this bird and the Wattled Starling (*Dilophus carunculatus*) are both known in that country as the Small Locust-bird, it seems very probable that the two species have been confused together either by Mrs. Barber or by Mr. Layard. It is a significant fact that the Layard collection of eggs in the Museum at Cape Town, which is a very good one, reflecting great credit on the energy of the collector, does not profess to contain an African egg of the Pratincole. The Quail

(*Coturnix communis*) certainly does breed in South Africa; but this bird is a partial resident in Natal and the Cape Colony, its numbers being probably increased by migratory but non-breeding birds in spring. There is no reason to suppose that the breeding-area of its distribution is discontinuous, and, in the absence of any evidence to the contrary, it is fair to assume that it breeds throughout Africa, as the Heron, several species of Egret, the Black-winged Stilt, and the Avocet are known to do. It is possible that there may be species of birds breeding both in Europe and in South Africa, but wintering only in Central Africa; in which case we should find the curious anomaly of a species of bird found all the year round in Tropical Africa, but not breeding there, half the individuals being absent from March to September, in order to breed in the northern hemisphere, and the other half being absent from September to March, in order to breed in the southern hemisphere; but before such a theory could be accepted it must be supported by facts which are not open to suspicion.

The winters in South Africa are very much milder than those of England, they approach much nearer in climate to those of the Riviera; snow is almost unknown, but in many places the nights are cold, and as in South Europe, so in Natal, many birds, for the most part insect-feeding species, leave in autumn for warmer climes. Amongst these, several species of Swallow (*Hirundo albigularis*, *H. semirufa*, *H. cucullata*), most of the Cuckoos, and some of the Warblers are conspicuous examples.

It is rather remarkable that the delicate-looking Sun-birds, which vie with the Humming-birds in the brilliancy and metallic lustre of their plumage, are able to brave the winters of Natal without migrating. *Cotyle paludicola*, the representative of our Sand Martin, and *Cotyle cincta*, the representative of the South-European Rock Martin, must also be included amongst the residents.

There is in the British Islands a great deal of local wandering amongst birds, and in Natal this internal migration is even more conspicuous. The climate of South Africa varies

in different localities. The rainy season is, as a rule, during summer, but there is a strip of country near the coast, extending from Cape Town to Knysna, where the rain falls in winter, and between the two districts is a belt of country of uncertain rainfall, where in some years it rains every month, and in others little or no rain falls for a whole year. These changes of climate necessitate great changes of residence amongst the bird-population. Some birds feed principally on grasshoppers, and migrate far and wide in search of large erratic flights of these insects. Man has been described as a cooking animal, but Nordmann's Pratincole also much prefers to eat its locusts cooked, and may be said to spend its time in migrating in enormous flocks in search of roasted grasshoppers. The grass in Natal is of such rank growth, that large patches of veldt are burnt off every year to clear the ground; and then the Pratincole, the Lapwing (*Vanellus melanopterus*), and the Courser (*Cursorius rufus*) are always on the look-out for these grass-fires, feeding eagerly upon the scorched insects left in their wake. For days together flights of Pratincoles pass over the country, perhaps not to be seen again for weeks, or even months. The flights of ants are also a source of great attraction to some birds. For about a week early in March, a flock of perhaps three hundred Eastern Red-legged Falcons (*Falco amurensis*) frequented the farm in Natal where I was stopping. They spent the day hawking like Swallows at a great height in the air, and at night they roosted all together on the naked branches of some tall trees in the bush. It is very remarkable that these birds are not known to breed west of Irkutsk, their summer-quarters being apparently confined to the valley of the Amoor in South-eastern Siberia, though their winter-range extends from the eastern provinces of the Cape Colony through India to China.

The South-African Snipe (*Scolopax æquatorialis*) is only known from South Africa, where it is a resident, breeding all over the country in the vleys or marshes. In exceptionally dry seasons many of these vleys dry up, and the ground becomes too hard to be probed by the soft bills of the

Snipe in search of food. The Snipe are consequently obliged to migrate for a season to vleys where there is still abundance of moisture, and thus it often happens that large bags are obtained where a week before only a few scattered pairs could be found.

One of the most conspicuous birds in Natal, during the month I spent in the country, was the White Stork (*Ciconia alba*). In riding across the veldt it was seldom that one or two pairs were not visible, and sometimes large flocks collected together to roost on the bare branches of some venerable tree in the bush. No bird could be better known to the colonists, amongst whom it is familiar as the Great Locust-bird. But the only instance that I heard (and I made many inquiries) of the breeding of this bird in Natal, was that of a pair which once bred on the ground nearly twenty years ago. Even supposing the identification of the species to have been correct, the fact of the nest being on the ground in a country where houses, rocks, and trees abound is presumptive evidence that the bird which made the nest was unable to fly, and persuaded its mate to remain with it in their winter-quarters.

Few points connected with the ornithology of South Africa have given rise to greater difference of opinion than the various plumages which characterize the Mountain Chats (*Saxicola monticola* and *Saxicola leucomelena*). These birds are by no means uncommon on the highlands of Natal, wherever the ground is strewn with rocky boulders. So far as I was able to ascertain, I think we may accept the statement of Messrs. Butler, Feilden, and Reid ('Ibis,' 1883, p. 332), that the females are, like the birds of the year of both sexes, brown all over, except the rump, tail, and tail-coverts, which vary very little either with age or sex. This, of course, implies that some of the grey birds in the National Collection, obtained by Andersson in Damara-Land, are incorrectly sexed. One more statement will probably be admitted by everyone who has watched these birds amongst the rocks, namely, that whilst the females vary little or not at all, the males differ from each other in a remarkable man-

ner. The earlier writers on South-African birds regarded each of these various forms as distinct species. When I wrote the fifth volume of the 'Catalogue of Birds' in the British Museum, I ventured to hazard the hypothesis that there were only two species, and that the intermediate forms were merely crosses between the extremes. The conclusion that Messrs. Butler, Feilden, and Reid came to, was that the variations are due to age, and that the brown birds first grow black, and then (when they are six years old) grey. On the underparts, below the breast, the change is still more extraordinary. It is alleged that the brown changes first to white, then to black, afterwards to grey, and finally to whitish grey, when the bird is presumably seven or eight years old. It is quite possible that this theory may be true, but I am unable to discover a shred of evidence in its favour. It appears to me to be a wild hypothesis, unsupported even by analogy, and if true, is a unique fact in ornithology. Now the theory that these variations are the result of the interbreeding of two (or now that the grey birds are proved to be males, of three or more) imperfectly segregated forms, is supported by considerable evidence. The analogy of the intermediate forms between *Saxicola picata* and *S. capistrata*, between *Monticola cyanus* and *M. solitaria*, to say nothing of the distantly allied Crows (*Corvus cornix* and *C. corone*), is very suggestive, and an examination of a series of each confirms the theory of interbreeding. It is impossible, in either the Crows or the Mountain Chats, to arrange the intermediate forms in a satisfactory series. Sometimes the influence of the male is apparently strongest on the upper parts, and sometimes on the lower parts. It is difficult to imagine that sometimes the upper parts age first, and sometimes the lower parts. The facts that in the adult birds of *S. leucopyga* the crown is white, but in birds of the year black, and that in the adult birds of *S. lugubris* the belly is black, but in birds of the year white, suggest that in the Mountain Chats these parts may vary in colour with age.

It seems to me that this vexed question is as far as ever from being solved. All we can say is that the males vary

very much. Messrs. Butler, Feilden, and Reid make the variations nine in number, but it is just as logical to make them nineteen. Some of these variations are unquestionably due to age, but others appear to be so erratic that the only hypothesis which will reconcile them is that of interbreeding. How otherwise can you explain the fact that birds with a pure white crown are apparently confined to the extreme west of South Africa, and that the white crown is found associated both with black and grey backs? Until a bird has been seen to moult from one plumage to the other, I submit that the theory that all the variations are due to age is pure hypothesis.

The extraordinary influence of the Gulf-stream upon the climate of the British Islands naturally prepares the English traveller to find similar effects produced by oceanic currents in other parts of the world. A notable example of this climatic variation is within easy reach of the visitor to Cape Town. A cold current comes down from the Antarctic ice, and passes along the west coast of Africa, materially assisting the progress of homeward-bound ships, but lowering the temperature of the water in Table Bay so much as to make bathing on the coast near Cape Town practically impossible. A few hours drive across the isthmus, through a charming country, full of vineyards and avenues of oak-trees, leads to False Bay, where the water is so warm that many Cape Town families migrate thither during the heat of summer to enjoy the sea-bathing and the country air. A warm current from the equatorial regions of the Indian Ocean flows down the east coast of Africa, and its influence extends as far as the Cape of Good Hope. The result is that the east and south coasts enjoy an almost tropical climate and display a more or less tropical vegetation. For some miles inland the country is well wooded. Near Knysna there are extensive forests, where wild elephants still roam. But the country rises rapidly from the coast, and for some hours the railway from Port Elizabeth passes through an ostrich-farming district. Nothing could be less like an English landscape than this part of South Africa. The hills are rugged,

rocky and bare ; the valleys are full of a rank tropical vegetation, of which the cactus and a palm-like aloe are the most conspicuous trees ; and when fenced ground is reached the enclosure is often found to contain a herd of ostriches instead of cattle. The landscape can only be described as "all that there is of most un-English." Inland from Cape Town the scenery is different. The cold current from the south removes nearly all trace of tropical vegetation, vineyards soon give place to corn-fields, and you pass through almost the only wheat district in the colony. North of these limits lies the Karroo. From Cradock in the east, up to Kimberley in the north, and then down to Worcester in the west, the railway passes through a country, compared with which a Siberian tundra is a paradise. I have never seen anything so hopelessly dreary as the Karroo. Every square yard is indelibly stamped with the two-fold signs of deluge and drought. The country is walled in by naked hills, generally table-topped, from which every trace of vegetation and soil has been washed away by deluges of rain, leaving only a heap of disintegrating stones, tied together by layers of hard rock. The undulating valleys are bare mud or earth, thinly sprinkled over with dwarf herbs and bushes, seamed here and there with dry watercourses, and torn up in the valleys with deep torrent beds which tell of floods carrying everything before them. But sometimes months and months pass by without a drop of rain, and what vegetation has been spared by the torrents of rain is destroyed by the scorching rays of a burning African sun. And yet this country produces a great deal of wool and mohair, though farming has been reduced to the conditions of a gambling transaction. There are certain semi-saline plants or little bushes growing upon the Karroo, which sheep and goats eat greedily, upon which they fatten rapidly, and multiply prodigiously, and which appear to be a panacea to all the ills that sheep are heir to. The consequence is, that when there is plenty of rain the farmers become rapidly rich, to be reduced to the verge of ruin if a long period of drought sets in. In times of prosperity the farmer has little or no inducement to do

anything but enjoy his abundance; in times of adversity there is little or nothing that he can do to ward off impending ruin. Therefore he becomes a fatalist, stolid indolence being the prevailing feature in his character: his motto is never to do anything to-day that can possibly be done to-morrow. He grows a few vegetables round his homestead, just as much as he can water from his well, if need be. That life under such circumstances should be deemed to be worth living is almost inconceivable. How bitter must have been the hate of English misrule that induced the stolid Boer to trek away to such a desolate country!

But, dreary as it looks, the Karroo is by no means destitute of bird-life. Larks and Pipits abound on the open plain, and near the houses a large Sand Martin, *Cotyle fuligula*, is common. Bustards and Coursers of various species are still found, but the Karroo bird *par excellence*, the Ostrich, has been practically exterminated, except as a domesticated species.

Ostrich-farming has had many vicissitudes. The price of a pair of birds, when the rage for Ostrich-farming reached its culminating point, went up to £250, but has now fallen as low as £10. Each bird produces a crop of feathers every July or August. At the highest price the crop sold for about £17, now it only averages about £2 10s.; nevertheless, I was informed that, with good management, Ostrich-farming still pays well. The feathers are cut, and the stumps pulled out a few weeks afterwards, when the operation can be performed without pain or injury to the bird. There are several interesting points in the domestic economy of the Ostrich. It is doubtful whether these birds are polygamous in the wild state; and in their semi-domesticated condition on the South-African farms, polygamy is said to be the exception, and not the rule. Artificial incubators are now very rarely used. Ostriches thrive best when they are allowed to do as they like. The larger the run, the better for the birds. They quarrel much less with each other, and they can the better select the particular kind of grasses which they require to

keep themselves in good health. A large farmer told me that on his farm of twelve thousand acres he did not like his Ostriches to exceed 150 in number. Of course he had sheep, oxen, and goats on the same ground. The Ostriches were allowed to select their own site for the nest, which was merely a hollow scraped in the sand, sometimes under the shelter of a bush. The hen laid an egg every other day, until about 20 were laid, when the cock bird placed the eggs in order, and the pair began to sit. The cock took the greater share of the labour, sitting sixteen hours every day, or rather every night from 4 P.M. to 8 A.M. The hen only sat eight hours daily, from 8 to 4. Incubation lasts forty-two days; the cock bird turns every egg over daily, and it is not an uncommon thing for all the eggs to hatch. There is, however, great mortality amongst the young, which are liable to a variety of diseases, from tape-worms, wire-worms, &c. They do not become fully adult until the second year, many not until the third. The cock generally pairs with the same hen for several years in succession. Ostrich-farming on the Natal veldt has proved a disastrous failure, probably for want of some of the saline plants which grow on the Karroo.

I am able to add one species to the list of Natal birds. *Vanellus inornatus* is occasionally found near Durban. Other birds which I hoped might prove new to the South-African fauna turn out to be well-known species, but so incorrectly described in both editions of Mr. Layard's work as to be unrecognizable.

Numida verreauxi was described in 1870 from Natal (Elliot, Ibis, 1870, p. 300). The secondaries are described as "black, with their inner webs spotted; outer webs of the first four, *with the exception of a narrow line along the shaft, white*; outer web of the rest unspotted, black, with lines of bluish-green running their entire length, as though the spots had become confluent." (The italics are mine.) In the 'Monograph of the Phasianidæ,' Mr. Elliot copies his original descriptions of the birds in 'The Ibis,' but by some unaccountable blunder omits the words which I have italicized. This description, blunders and all, is copied in the

“thoroughly revised” edition of Layard’s ‘Birds of South Africa.’

Otis melanogaster is a well-known and very handsome Bustard, found in various parts of South Africa, including Natal. Its ochraceous-buff upper parts, marked in various ways with black, scarcely differ from the tail in colour. When I found that the tail is described both by Mr. Layard and Mr. Sharpe as black, I naturally concluded that I had met with a new species; but since my return home I have discovered that the species described by the former, and retained in the “thoroughly revised” edition by the latter, is *Otis hartlaubi*, a perfectly distinct species, with a black tail, found in Abyssinia.

Syrnium woodfordi is described both in the original and in the thoroughly revised editions of the ‘Birds of South Africa’ as having “collar white with brown bars;” but has no collar of any kind! It is extremely puzzling to South-African students to meet with so many blunders, of which these are examples, in books written especially for their instruction; and it seems to me that I was fully justified in complaining (Catalogue of Birds, v. p. 123) of the *accustomed carelessness* of the writers on African ornithology.

Both in going and returning I had many opportunities of watching the large Gulls which frequent the Canary Islands and Madeira. It was a very rare circumstance indeed to be without half a dozen of them following in the wake of the ship, and often coming within ten yards of the stern. All the birds I saw were adult or nearly so, were large, with yellow legs and palish mantles, and belonged unquestionably to the Mediterranean form of the Herring Gull, *Larus argentatus cachinnans*; they certainly were neither the typical *L. argentatus* nor *L. fuscus*.